

XIV.—*On a Journey to the Fiji Islands, with Notes on the present Status of their Avifauna, made during a Year's Stay in the Group, 1910-1911.* By P. H. BAHR, M.A., M.B., F.Z.S., M.B.O.U., F.R.G.S. *Together with a Description of a small Collection of Skins from the same locality,* by C. B. TICEHURST, M.A., M.B., M.B.O.U.

(Plate V.)

A JOURNEY to the Fiji Islands is nowadays no perilous undertaking. Though they are situated at the opposite side of the globe, the voyage may be accomplished within a period of two months *viâ* Australia, or in half that time by the direct mail route *viâ* Canada. To the ornithologist, a passage, however rapid, through regions zoologically so distinct must be of surpassing interest.

I first propose to give a few notes on the birds seen on the outward journey *viâ* Australia, which are necessarily confined to the more maritime species*.

After the familiar European forms seen during the sea passage through the Bay of Biscay, at Gibraltar, and in the Mediterranean, the teeming bird-life frequenting the Suez Canal in December comes as a welcome change. There, for the first time, the British ornithologist obtains an insight into the tropical avifauna. Flocks of Flamingos, making a hazy pink line, extending as far as the eye can reach, fringe the blue waters of the shallow lagoons, while overhead, Pelicans, in flocks of fifty or more, soar in a flight strikingly powerful and majestic for such an ungainly bird.

Birds of Prey were much in evidence: Marsh-Harriers were seen in numbers in quest of frogs on the Canal banks: while a number of Hobbies pursuing insects, a Lesser Kestrel, and a Long-legged Buzzard (*Buteo ferox*), of which a splendid view was obtained, completes the list of the smaller Raptores.

* In the Straits of Gibraltar and again in the Gulf of Lyons I saw numbers of the Mediterranean Shearwater (*Puffinus kuhli*) and the Yellow-legged Herring-Gull (*Larus leucophæus*).

A large dull-coloured Eagle, carrying a small hare in its talons, I was unable to identify.

I was surprised to see a pair of Ravens (*Corvus umbrinus*) hopping about in the Desert sand, while another quite unfamiliar bird which appears to be abundant in the district is the Pied Kingfisher (*Ceryle rudis*).

Shortly after entering the Canal (Nov. 30th) we were visited by a small party of White Wagtails (*Motacilla alba*), which remained on board till night fell, in spite of the attentions of the ship's cat. In the salt marshes on both sides of the Canal, the water was obscured by immense flocks of Ducks, the identity of which, owing to the failing light, I could not distinguish; there were, however, great numbers of Grebes, amongst which the Black-necked species (*Podiceps nigricollis*) could be recognised. Purple Herons and Black Storks were present in numbers. Of the Waders the Common Sandpiper, Curlew, Redshank, and Ringed Plover were there in their tens of thousands. The commonest species of Gull seen was the Mediterranean Black-headed Gull (*Larus melanocephalus*).

The Kites at Aden (*Milvus migrans*) are a familiar sight to every visitor; great numbers surrounded the ship, snatching the offal from the water and cleverly transferring dainty morsels to their beak while in flight. The aerial antics of these birds in pursuit of one another were quite remarkable, they were often seen to turn a complete somersault in the air. Above the town of Aden, Egyptian Vultures were soaring, and in direct contrast to them it was strange to see and hear what I took to be the Arctic Tern*.

For several days after leaving Aden, whilst in the open Indian Ocean, long. 60° E., lat. 10° N., large flocks of Grey Phalaropes (*Phalaropus fulicarius*) flew parallel with the ship, constantly alighting on the water and resuming their journey eastward when overtaken by a flock following in the rear.

At Colombo the voyager is briefly introduced to the avifauna of the Indian region, the ubiquitous Indian Crow

* I identified this species through field-glasses.

being the first species to make itself known by its clamorous presence. The Pondicherry Eagle (*Haliastur indus*) and the Chinese Tern (*Sterna sinensis*) were noted in the harbour.

From Colombo to the shores of Australia is a ten days' run over a trackless ocean, and consequently birds of any sort are rarely met with. After crossing the line the nearness of the Cocos Keeling Islands, though themselves invisible, is marked by numbers of Boobies (*Sula piscator*) and Petrels, among the latter being a large brown species (*Puffinus brevicauda* vel *tenuirostris*), familiarly known in Australian waters as the "Mutton Bird," with which a closer acquaintance was made on approaching the coast. Our proximity to land was heralded by large flocks of Sooty Terns (*Sterna fuliginosa*).

A short trip up the Swan River to Perth afforded me an opportunity of seeing a little of the birds of Western Australia. Conspicuous were the Pied Cormorants (*Graculus varius*) resting on the harbour buoys, Jameson's Gull (*Larus nova-hollandiæ*) in mature and immature plumage, and the Australian Pelican (*Pelecanus conspicillatus*) soaring overhead; but the number of species seen on the sandbanks was not great. I recognised flocks of a large Tern (*Sterna bergii*), which henceforth became one of the commonest sea-birds. There were also a few individuals of a smaller species, probably the Whiskered Tern (*Hydrochelidon hybrida*). The Black Swan, after which bird the river is named, was represented by five semi-domesticated examples swimming in front of the town pier.

Albatrosses were not seen until, after passing Cape Lieuwin, we had entered the Australian Bight. Then two species, the Wandering (*Diomedea exulans*) and the Black-browed Albatross (*D. melanophris*), appeared together.

Like everyone who has seen the former for the first time, I was greatly impressed by its almost unparalleled power of flight. The observer obtains a little idea of the rate at which it is travelling on apparently motionless pinions, when, after lagging behind for a couple of miles, it overtakes the ship with apparently but a single flap of the

wings from the radio-carpal joint. Often when the birds were hanging seemingly motionless above the ship I could clearly see how they adjusted their balance to every gust and eddy by raising or depressing first one wing and then the other. When attempting to check their flight suddenly, they have a habit of throwing back their body weight, tilting up their breasts, throwing up their tail, and spreading their great paddles; in this manner they skid over the waves for a considerable distance. The flight of the smaller species, though majestic enough, cannot be compared with that of its larger relative.

To my mind, however, the Mutton Bird possesses powers of flight which compare very favourably with either. This species seems to travel even faster than an Albatross, whether with or against the wind seems to matter little, and I never saw the bird settle or flap its wings. The evolutions it describes must be seen to be appreciated. Once I was fortunate enough to see a few individuals of the Sooty Albatross (*Phoebastria fuliginosa*), the Cape Pigeon (*Daption capensis*), and the Black-bellied Storm-Petrel (*Thalassidroma melanogaster*). Again, during a gale of some magnitude numbers of the White-faced Storm-Petrel (*Pelagodroma marina*) appeared dancing in front of the ship's bows.

Christmas Day 1909 was spent at Adelaide. Here I saw the Pacific Gull (*Larus pacificus*) and the Australian Gannet (*Sula serrator*) at close quarters, in addition to the now familiar Jameson's Gull and Berg's Tern. On shore English birds, the Sparrow, Starling, and Goldfinch, were as abundant, if not more so, than in their native land. Numbers of small Plovers (*Aegialitis ruficapilla*) were evidently nesting on the waste land by the pier; other typically Australian species noted during a short day spent on shore were the Kestrel (*Tinnunculus cenchroides*), the Square-tailed Kite (*Lophoictinia isura*), and the Australian Spur-winged Plover (*Lobivanellus lobatus*).

During a short stay of twenty-four hours at Melbourne, I saw a few more birds. The small Australian Cormorant (*Graculus novæ-hollandiæ*) was common in the harbour, and

more interesting still were several flocks of the curious Musk-Duck (*Biziura lobata*). In the town of Melbourne itself the Indian Mynah is the commonest bird; there are also great numbers of Sparrows and Starlings, and in the public gardens Thrushes and Blackbirds abound. Amongst these exotic birds I managed to pick out a few Australian species, the Laughing Jackass (*Dacelo gigas*), the Nankeen Night-Heron (*Nycticorax caledonicus*), and the Sombre Gallinule (*Gallinula tenebrosa*).

After leaving Melbourne and passing through Bass Straits I made the acquaintance of two Giant Petrels (*Ossi-fraga gigantea*); these were easily distinguished from the Sooty Albatross, which they somewhat resembled in size, by their peculiar flight and the conspicuous fleshy tint of their bills. After following the ship for a short time they took themselves off. A small Petrel (*Prion ariel*) now became common; the flight is extraordinarily rapid and rivals that of the Mutton Bird.

After leaving Adelaide on Christmas Day 1909, and until we arrived in Sydney Harbour, a number of Skuas had been following the ship and disputing the offal in the wake with the Albatrosses. Their shape, form, variable plumage, and elongated tail-feathers were all familiar to me; they were none other than Richardson's Skua (*Stercorarius crepidatus*). This species has been reported from New Zealand, but I could obtain no confirmation of its occurrence in Australia* in the Sydney Museum, and it was said there that the Pomatorhine species (*S. pomatorhinus*) had never been seen south of Queensland.

In Sydney itself little native bird-life can be seen in the public parks; the English Sparrow flourishes to the exclusion of everything else. Some typically Australian species still, however, exist there, amongst which the White-eye (*Zosterops lateralis*) and the Blue Wren (*Malurus australis*) were special favourites of mine.

* I have been kindly informed by Mr. Gregory Mathews that he has received a skin of this Skua from Chatham Island, though he has no specimens from South Australia. It has been recorded in the Australian list since 1883.

From Sydney to Fiji is a week's journey, and the unpleasant damp heat is an unwelcome change after the cool breezes of Southern Australia. After leaving Sydney and steering in a northerly direction the Mutton Bird became extremely numerous. We soon passed between some remarkable rocks, Lord Howe Island and Ball's Pyramid, situated in the middle of the Pacific. Lord Howe Island rises to a height of 2840 feet and is evidently the breeding-place of a number of sea-birds. There were great numbers of Gannets (*Sula serrator*), Noddies of two kinds (*Anous stolidus* and *A. cinereus*), Storm-Petrels (*Thalassidroma melanogaster*), and several Red-tailed Tropic Birds (*Phaëton rubricauda*); the last-named species was seen to dive from an extraordinary height with a plunge which outrivalled that of any Gannet.

A few black Boobies (*Sula cyanops*) were seen as we rapidly approached the Fiji group.

Ornithology was not the primary object of my work in Fiji; medical and microscopical investigations necessarily claimed the most of my time and attention. Being unable to obtain any local assistance, I had little leisure for collecting and preserving skins. However, I kept a daily record of the birds seen in the vicinity of my house and the garden, which, having lain uncultivated for some time, had become overgrown with thick jungle.

Although a considerable amount has been written on Fijian ornithology, yet little has been added to our knowledge within the last twenty years; still more is to be learned, I am sure, and this investigation must be quickly undertaken or else it will be too late. With the object of stimulating and directing the attention of ornithologists to this point, these notes have been written, although, I admit, they are extremely incomplete.

Two events have happened since Finsch, Hartlaub and Layard wrote, which have profoundly modified the proportional status of the local avifauna. I refer to the introduction—to my mind, an almost criminal act—of the Mongoose and the Mynah (*Acridotheres tristis*) from India. The former of these pests was introduced some twenty-five years ago to

keep in check the number of rats which were destroying the sugar-cane. The result, as elsewhere, has been that the rats are still found in plenty, whereas the more defenceless birds have suffered. To such an extent has the Mongoose increased that it is now a common and obvious feature of the landscape. The rearing of domestic fowls has become almost an impossibility. Within the confines of our garden in Suva I had little difficulty in killing over thirty of these animals in less than a fortnight by means of two Mongoose-traps.

I frequently observed the Mongoose spring on and successfully catch small birds feeding in the long grass. It has taken to climbing trees, and therefore the species building in more or less accessible positions, such as the Parrots and the Lorics, have suffered most. The Pigeons, which place their nests in the more slender branches, have to a much larger extent escaped. The harmless ground-snakes, once so highly prized by the Fijians as an article of food, have disappeared from Vitilevu, and it is said that even the land-crabs have shared the same fate. Luckily, however, the ravages of the Mongoose are confined at present to the two larger islands, Vitilevu and Vanualevu, where sugar is grown on an extensive scale. The lovely and fertile island of Taviumi, in spite of certain ill-advised attempts at introduction, which, happily, have so far been frustrated, still remains free from this pest and is a sanctuary to the birds peculiar to it.

The Mynah, on the other hand, was introduced with the object of destroying certain insects which bore into the sugar-cane. This it is said to have done to a certain extent. Its influence has been marked on the number of Lepidoptera, which have greatly decreased. This bird has increased enormously in numbers, especially in the western part of the group. Being of a quarrelsome disposition it drives away the native birds from the vicinity of European houses. Its range is more or less confined at present to the cultivated areas of ground and it is not seen far away from human habitations.

The Fiji group consists of a number of islands, estimated at two hundred and fifty, extending over an area five times the size of Wales—a distance of three hundred miles separating those of the western from those of the eastern group. Since the cession of the islands to the British Government in 1874, there has been a steady influx of East Indian coolies, who now number 39,000. The native Fijian, though an estimable individual in many ways and a devout Christian, is quite unsuited to any work of an arduous character. He cares little for the things around him, and beyond a knowledge of fish, shell-fish, and plants, which form the staple articles of diet, is little interested in other animate objects. From a Flying Fox to a microbe he designates all animals by the same name "*Manu Manu*"; indeed, I have often seen even intelligent natives mistake a bat for a bird.

The people in the villages relate that the art of catching wild fowl which they once possessed has died out with the last generation—since the importation of tinned meat and salmon. The paucity of native names for birds of any description testifies to the same fact.

For the native names of birds given in the course of this paper I wish to acknowledge my indebtedness to Dr. B. Glanvill Corney, I.S.O., for twenty years chief medical officer of the Colony, who possesses an unrivalled knowledge of the Fijians, their language and customs.

During the greater part of my time I was confined to one spot in the neighbourhood of Suva, the capital of Fiji, on the island of Vitilevu, but during the months of July and August I made a trip in a small schooner to the eastern islands of Vanua Vua, Lakemba, and Oneata. In December I stayed five days on the island of Taviani.

I managed to obtain a limited number of native birds, which I kept in captivity and some of which I managed to transport alive to this country. On these I have published some notes in the '*Avicultural Magazine*' for December 1911.

On March 24th, 1910, the island of Vitilevu was visited by a hurricane of exceptional severity, which did great

damage. A number of birds which had not been previously seen were noted after the storm had subsided.

I propose to treat of the different species that I met with in the order of the list given by E. L. Layard in 'The Ibis' for 1876 (p. 391).

FALCO LUNULATUS (Lath.).

"Ga-ni-vatu" of the Fijians.

This bird was seen several times in the low-lying scrub surrounding the mouths of the rivers draining into Suva Harbour. Mr. Layard gives its range as confined to Vitilevu, but it is probably spread throughout the group. I saw a pair of small Falcons, possibly belonging to this species, at Loma-Loma on the island of Vanna Vua in the eastern group. They were soaring high and uttering a shrill cry, not unlike that of the Kestrel.

CIRCUS APPROXIMANS Peale.

Circus assimilis (F. & H. 1867).

On account of its depredations on the poultry-yards this species has become reduced in numbers in the neighbourhood of Suva (Vitilevu). It was commonly seen quartering the ground in typical Harrier-fashion in all the parts of the group visited. The stomach of a female which I shot in front of my house contained four newly hatched young of *Erythrura pealei*.

The native name of this species is "Reba" or "Waituitui." [♀ adult. May 7, 1910. Cere light greenish yellow. Suva, Vitilevu.

This specimen is undergoing a complete body-moult; the tail is half moulted and the rectrices have just begun to moult, both in an irregular fashion.—C. B. T.]

STRIX LULU Peale.

"Lulu" of the Fijians.

A pair of these white Owls were seen every evening flying amongst the palm-trees in the garden at Suva, Vitilevu. The stomach of one specimen which I shot contained elytra of beetles and the remains of certain insects.

The plumage was found to harbour several hippoboscid flies.

[♀ adult. Aug. 14, 1910. Suva, Vitilevu.

This specimen is in worn plumage and is not in moult. The pure white under wing-coverts, breast, and belly are flecked. Wing 27 cm., tarsus 56 mm.—C. B. T.]

PYRRHULOPSIS SPLENDENS (Peale).

“Kaka” of the natives (a name applied to other species as well).

This species now appears to be found most commonly on the island of Kandavu, whence it is brought as a cage-bird to Suva for sale. Until a few years ago the Samoans were in the habit of making an annual pilgrimage to the island in order to shoot this bird and the “Kula” (*Calliptilus solitarius*) for the breast-plumes, with which they adorn their mats.

The late Governor, Sir Everard im Thurn, K.C.M.G., fortunately put an end to this practice. On the island of Vitilevu this species has become very scarce. In the vicinity of Suva I saw but one solitary bird, which stayed in our grounds for some time after the hurricane of March 24th. In the interior of Vitilevu I saw a few in the higher parts, but they were very wild. It is said that it was once so numerous that when maize was grown in Fiji, some thirty years ago, small boys with rattles had to be constantly employed to scare it from the crops.

I obtained three nestlings from Kandavu, which were successfully transported alive to England. According to the natives, it nests on the tops of bamboo-clumps. In plumage the young resembled the adult, but the colours were much duller and the wings and tail shorter, as in *P. taviunensis*. The colour of the iris was dark brown, a colour which changed to bright yellow when the birds were about six months old.

PYRRHULOPSIS TABUENSIS (Gmel.).

This handsome form of *P. splendens* is said to exist only in Vanualevu, but in numbers greatly diminished by the

depredations of the Mongoose. I saw one individual in captivity from there; it was a very handsome bird, resembling *P. splendens* in every way, save that the prevailing colour of the breast was dark maroon instead of scarlet; the blue nuchal collar is as well marked as in *P. splendens*. From Vanualevu this species has been introduced, it is said, to the island of Eua in the Tonga group. I had one specimen in captivity obtained there. It is now in the Zoological Gardens, and resembles in every way a bird obtained in Vanualevu which has been there several years.

PYRRHULOPSIS TAVIUNENSIS (Layard).

This is quite a distinct species, having a much stouter head and beak than the preceding, with shorter wings and tail. The breast is maroon-coloured, and there is no blue nuchal collar. It is still quite common in Taviuni; examples shot there in December were in full moult. A pair of young birds were brought back alive to England, one of which is now in the Zoological Society's Gardens.

These young birds resembled the adult in plumage; the iris, which at first was of a deep brown colour, changed to yellow when they were seven months old. They were in full moult on their arrival in this country, when they were about five months old.

PYRRHULOPSIS PERSONATUS (Gray).

This species is peculiar to the island of Vitilevu*, whence it is fast disappearing. Large flocks used commonly to be seen round Suva and on the Rewa River.

A few can still be seen in the mangrove-swamps which border the harbour at Suva. After the hurricane in March five frequented our garden for a few days. The specimen which I then shot was in moult and was covered with feather-lice, especially on the head. It is said that no young have been taken by the natives for years, and consequently the bird is now seldom seen in captivity. I possessed one which was taken as a nestling on the Rewa

* Dr. Finsch procured a specimen alive at Levuka (P. Z. S. 1877, p. 729), where it had probably been brought from Vitilevu.



River several years before. I kept it in captivity for nearly a year, but it died a short time before I left. This species has a peculiar goat-like odour, which is very noticeable in the skins, and this made my bird less attractive as a pet than it otherwise would have been.

The cry is peculiarly harsh. My captive bird never learned to talk; it had a peculiar cackling note, uttered during the night-time, which was quite distinct from that of the other species.

Of the rarer birds peculiar to Fiji this will be the first to become extinct at no very distant date.

[♀ adult. March 29, 1910. Suva, Vitilevu. This specimen is just finishing its moult of body-feathers only. Wing 230 mm.; tail 233; tarsus 22; bill 25 #.—C. B. T.]

CALLIPTILUS SOLITARIUS. (Plate V.)

Calliptilus solitarius Salvad. Cat. Birds, xx. p. 42.

The "Kula" of the natives was dubbed *solitarius* by Latham, though, like previous observers, I am quite at a loss to understand the reason, for I never saw a more sociable bird. Round the centres of civilization it is now only occasionally seen. It has a peculiarly shrill cry, sounding, in the distance, not unlike a squeaky wheel. Though it has suffered severely from the attentions of the Mongoose, large flocks still frequent the forests in the more inaccessible places in Vitilevu. In Kandavu it is said to be very abundant. It was seen in great numbers flitting about the cocoanut-palms in Taviuni and in Oneata, but not in Lakemba or in Loma-Loma. In Taviuni I obtained some nestlings in December. The nesting-holes in decaying stumps were known to the planter; some of these he exposed and closed the aperture thus made with stones, so that they could be visited year after year. They were situated on a level with the ground, so it is easy to understand how this peculiarly handsome species has suffered

[* All measurements of bills are taken from the anterior part of the nasal aperture to the tip of the bill, to my mind the only method of obtaining uniformity.—C. B. T.]

so severely from the attentions of the Mongoose. The young were fed on milk and tea. Others were procured from Kandavu and were successfully reared. Two, which I managed to transport to England alive, are now in the Zoological Society's Gardens. Plate V. has been drawn from these specimens. In captivity they have thriven well on porridge and condensed milk, though they are very partial to fruits, feeding exclusively by means of their brush-ended tongues. The colour of the beaks, which was brown at first, changed to yellow when they were three months old, at the same time the colour of the iris became yellow. At six months old they underwent a partial moult of the breast- and head-feathers, and at eight months this moult was completed, including the feathers of the head and tail, and they then assumed the magnificent red-and-green Elizabethan ruff, so characteristic of this Lory. They are extraordinarily tame and very lively, making fascinating pets. When first procured as nestlings they were covered with white mites. They are extremely susceptible to cold. In the wild state this species appears to feed on the pollen of various flowers and especially that of the cocoanut-palm.

The nestling I procured was covered with dull grey down, among which the wing-quills and the tail-feathers were shewing. The feathers of the ruff, still encased in their sheaths, stood out round the neck like a frill, giving the bird a very odd appearance. I had no means of ascertaining what its age was when I first undertook to rear it. I kept it in a cigar-box, where it spent most of its time in sleep. It was extremely sensitive to cold, and appeared to be happiest when placed in the bacteriological incubator at 97° F. Its growth was extremely slow, and six weeks elapsed before it gained the use of its legs. By this time all the feathers, except those on top of the head, had made their appearance. I fed it with tea, milk, and sugar from my mouth, into which it would insert its whole head; this mixture it much preferred to sweetened milk alone or oatmeal gruel. It spent a great deal of time in preening itself and removing the sheaths from the growing feathers.

In soliciting food it uttered a curious note, somewhat like a loud-ticking clock, and agitated its whole body. After I had had it six weeks in my possession and it had become fully fledged, it was mortally injured by a fall out of its box on to the floor.

HYPOCHARMOSYNA AUREICINCTA (Layard).

I did not see this species, but was told by a planter that it is still common in the mountain-forest of Taviuni.

CACOMANTIS INFUSCATUS (Hartl.).

This species was seen in the neighbourhood of Suva only for a short period from the middle of April to the end of June, when it was extremely common. After that it entirely disappeared. No evidence of its nesting could be obtained, though according to Hartlaub it does breed there. It was mobbed in flight by the small birds, notably by the *Myiagra*.

Dimorphic forms were noticed, there was a dark and a much lighter variety; specimens which were shot shewed this coloration to bear no relation to sex. The generative organs of those procured in April and May were undeveloped.

[♂. April 17, 1910. Tamavua, Suva, Vitilevu.

○? May 7, 1910. Tamavua, Suva, Vitilevu.

The first of these has the barred feathers of the neck and breast washed with rufous, the second has but a trace of rufous. Both are just completing a body-moult only; the barred feathers are new and appear in the second specimen to be replacing bronze-brown feathers of the previous plumage. Both specimens are alike on the back. Wing 127 and 128 mm.—C. B. T.]

HALCYON SACRA (Gmel.).

“Sese” of the natives.

This is one of the most striking and familiar Fijian birds. Its shrill cry is one of the most characteristic sounds in the islands. It seems equally at home inland and on the sea-coast. One used commonly to visit our garden and catch insects and grasshoppers on the lawn, darting down upon them from a favourite stump. This is one of the only birds with which the natives seem to be more or less familiar.

A pair were seen constantly entering a hole in a dead stump at a considerable height from the ground during the months of May and June, where they undoubtedly had a nest. This species (or one like it) is extremely common on Vanna Vua and Lakemba, islands of the eastern group. The plumage of one specimen I procured harboured a hippoboscid fly.

[♀. Lakemba, Fiji, July 23, 1910. Wing 97 mm.; bill 34.

This, the only specimen brought home, is a puzzling bird. I went through the very poor series in the British Museum and examined those in the Tring Museum, but could find no example to match it. It is evidently, by the dull coloration and light edgings to the wing-coverts, a young bird, and Dr. Hartert tells me that it is undoubtedly *H. sacra*.

The forehead feathers are edged with buff; the crown, mantle, and scapulars are dull grey-green; the upper tail-coverts emerald-green; the wings and their coverts rather brighter than the back, the coverts edged with buff; there is a white collar of new feathers below the black collar, which again is separated from the crown by a buffish-white collar continuous with the supercilium of the same colour; whole of the under parts, including axillaries and under wing-coverts, old and new feathers white, at the side of the neck the feathers are edged with black; the ear-coverts are dull green.

The young in the British Museum differ from this specimen in having the breasts barred and the under wing buff and in being brighter in the colour of the upper parts. This specimen is moulting its body-feathers (the new ones being rather brighter than the old) and the two central tail-feathers are in the quill.

It seems that there is much yet to be learnt about the genus *Halcyon* in the Fiji group, for besides the stages of plumage and moults not being at all understood we have in this group :—(1) *Halcyon sacra*, found in all the islands (Layard, 'Ibis,' 1876); (2) *Halcyon surensis* of Sharpe from Suva, Vitilevu, of which the type in the British Museum alone appears to be known and which I think may perhaps only be a variety of *H. sacra*; (3) *Halcyon solomonis*, obtained by M. J. Nicoll at Suva, Vitilevu ('Ibis,' 1904), and I fancy there is

another in the British Museum from the same place. This anomalous condition of there being apparently three closely allied species of *Halcyon* in one island (Vitilevu) certainly wants further elucidation.—C. B. T.]

COLLOCALIA SPODIOPYGIA Peale.

Collocalia francica (Gmel.).

The Common Swift of the group was present in Vitilevu in equal numbers all the year round. It does not soar to any great height and has a feeble squealing note. In March it was found nesting in large numbers in caves amongst the soapstone rocks.

HIRUNDO TAHITICA Gmel.

“Kakahacé” of the Fijians.

This is purely a maritime species and is very locally distributed. During a ride through Vitilevu only a few were noted on the coast-line. In the district of Loma Loma on Vanua Vua there was a small colony, but they were never seen hawking over land but always over the sea. I was not able to ascertain what particular insect they were in pursuit of.

MYZOMELA JUGULARIS Peale.

This is undoubtedly one of the commonest and most attractive birds in Fiji. Its cheery call, fairy flight, and interesting feeding-habits make it a universal favourite. It is very partial to feeding on the various species of *Canna* which abound in most gardens in Fiji. Another flower to which it is particularly partial is that of a small bush, a *Frangipana*, I believe, which has been introduced into Fiji from Ceylon and is now extremely common there. In feeding it hovers over the flower in much the same manner as a Humming-bird, and then suddenly plunges in its curved bill, but whether in quest of insects or honey I was unable to ascertain. The males, which could always be distinguished by the amount and brightness of the red on their head and neck, are extremely pugnacious. In January and February the birds were in full moult.

This species was commonly seen every evening flying in

flocks towards some common roosting-place ; newly fledged young were seen towards the end of June.

In Loma Loma on Vanua Vua it is extremely common in the tops of the tall cocoanut-palms, whereas in the island of Lakemba, sixty miles further to the eastward, not one was seen. It was also noticed on the island of Oneata.

[1. ♂ ad. June 5, 1910. Suva, Vitilevu. Wing 58 mm.

2. ♂. July 10, 1910. Loma Loma, Vanua Vua. Wing 55·5 mm.

No. 1 has crimson on the crown, chin, and rump, but not so much as some examples ; no moult. No. 2 is a much duller bird, with only a trace of yellow on the throat and no crimson on the head, some on the chin, a little on the rump ; moulting two tail-feathers, but no moult elsewhere. It appears to be in juvenile dress.—C. B. T.]

PTILOTTIS CARUNCULATA (Gmel.).

This bird was seen only in the islands of the Eastern group—Vanua Vua, Lakemba, and Oneata,—where it was by far the commonest species encountered. It is extremely noisy and is known as the “Cocoa-nut Bird” to the white residents. Dr. Finsch records it from the island of Matuka.

PTILOTTIS PROCERIOR Finsch & Hartl.

This was one of the most familiar birds in Vitilevu, to which it appears to be peculiar. The male is much larger than its mate. It has a peculiar loud flute-like note, which has been imitated extensively by the imported Mynah. This species was found to be in full moult during the months of January and February. It is of a very quarrelsome disposition, and jealously drives away all intruders from its domain. While at work on the verandah of my house I was always aware of the presence of a Kingfisher or any other visitor to our garden by the behaviour of a pair of these birds on the tree opposite.

Several disused nests belonging to this species were discovered ; they were flat open structures, loosely composed of roots and fibres, and placed in thick scrub about eight feet from the ground.

PTILOTIS PROVOCATOR Layard.

This species is said by Layard to be peculiar to the island of Kandavu, which lies sixty miles west of Suva. On a visit to the island of Namuka, on the coast of Vitilevu, I saw repeatedly a large *Ptilotis* that differed considerably from *P. procerior*, both in voice, size, and general behaviour, which I am inclined to refer to this species.

ZOSTEROPS FLAVICEPS Peale.

This small White-eye is an extremely common species in the neighbourhood of Suva, where it frequents the gardens in large parties. It possesses a particularly sweet twittering note. Specimens shot in January and in February were in full moult.

[♂. Feb. 12, 1910. Suva, Vitilevu. This specimen is in fresh plumage. Wing 56 mm.—C. B. T.]

ZOSTEROPS EXPLORATOR Layard.

This is a larger bird with a bright yellow breast; it is the common species seen in Tavuni, where *Z. flaviceps* appears to be less abundant than it is in Vitilevu, though both species occur there. No nests of either were found.

MYIAGRA CASTANEIVENTRIS (J. Verr.).

This is a common and familiar species round all the European houses in Suva, and a frequent visitor to the verandahs, where it catches numbers of flies. It has a peculiar way of flirting the wings and tail, and quite a distinctive alarm-note. It was also seen in Vanua Vua, Lakemba, and Onkata. A deserted nest of this species formed of moss and fibres was found in June in a tangle of creepers surrounding a tree-stump.

[♂ ad. Feb. 1910. Suva, Vitilevu. Wing 73 mm.

♀ ad. Feb. 26, 1910. Suva, Vitilevu. Iris dark brown; tarsus black.

Both these specimens are moulting body-, wing-, and tail-feathers.—C. B. T.]

MYIAGRA LESSONI Jacq. et Pucher.

A common species round Suva. It is of rather a secretive disposition, feeding on small insects concealed amongst the thick vegetation. It possesses a harsh rasping alarm-note. Newly fledged young were found in the beginning of April. This species was seen on Ovalau and Taviumi, but not in the islands of the Eastern group.

[1. ♂ ad. Feb. 15, 1910. Bequa Is., near Suva, Vitilevu. Iris dark grey; tarsus steel-grey.

This bird is just completing a full moult of body-, wing-, and tail-feathers. Wing 69 mm.

2. Juv. April 6, 1910. Nasuviu, near Suva, Vitilevu. Wing 65.5 mm.

In general coloration this resembles the adult bird, but is rather paler, bill shorter and pale at base of lower mandible, not black; greater coverts without the blue tinge and white edgings.—C. B. T.]

PETRŒCA PUSILLA Peale.

In Vitilevu during the months of June, July, and August I frequently noted a pair of these gay-coloured little "Robins" on the tops of the highest trees. Only once did I see one on the ground. I never observed them in any other island. The male had a most delightful little song, a sweet cadence, not unlike that of the European Willow-Wren.

RHIPIDURA LAYARDI (Salvad.).

This bird has the habits of a Flycatcher. A pair were commonly to be seen by a particular hollow tree in our garden, whence they hawked for flies. This was the only pair met with in that neighbourhood. Individuals apparently referable to this species were seen in Loma Loma on Vanua Vua, where, according to Layard, it does not occur.

LAMPROLIA VICTORIÆ Finsch & Hartl.

This species is known to the planters on Taviumi as the "Satin Flycatcher." It has been driven away from the more cultivated areas by the march of civilization, but is said to be still common in the more mountainous districts, where I had not the opportunity of pursuing it.

LALAGE PACIFICA (Gmel.).

This is by far the commonest and most familiar native bird in Vitilevu. It retains the dull barred plumage all the year round. In the months of January and February it is in full moult. The plumage of both sexes is alike; the young in their first moult accompanying their parents resemble the adults in plumage, but are darker. The forehead-feathers of the adult bird are erectile.

These birds are of a noisy disposition, constantly chasing one another in small parties from tree to tree. They feed on the ground, hopping in passerine fashion. The nesting-season commences in September, when the rain-trees are bare of leaves. The nest, which is a plain cup-shaped structure formed of fibres, is placed in a prominent position, and those examined contained one or two young. No birds referable to this species were seen in Loma Loma on Vanua Vua, or in Lakemba.

Two individuals were shot near my house when engaged in building a nest.

I paid a short visit to the little-known island of Onkata in August; I was only there a few hours. I noticed, however, a species of *Lalage* of much larger size and whiter breast than any I had seen in Vitilevu. Not only was it different in appearance, but the note was much louder and shriller than that of the smaller species. I never saw any specimens in Vitilevu with a white breast, all there being barred.

A nest was found in a Pandanus, with which the higher parts of the island are abundantly clothed; it was situated about five feet from the ground, and contained two hard-set eggs. These were green in colour, marked with dark blotches, evenly distributed. The nest and eggs were sent to Dr. Ticehurst and the brooding bird was secured.

[1. ♀. Sept. 26, 1910. Suva, Vitilevu. Iris hazel; feet blue-black. Wing 86 mm.; tail 60; bill 10.5.

2. ♀. Sept. 14, 1910. Suva, Vitilevu. Iris hazel; feet blue-black. Wing 87.5 mm.; tail 59.5; bill 11.

3. ♂ juv. Feb. 12, 1910. Suva, Vitilevu. Wing 85 mm.; tail 61; bill 9.

4. ♀. July 27, 1910. Oneata Island, Fiji. Iris hazel; feet blue-black; bill brown, lower mandible hazel (dull white in dried skin). Wing 96 mm.; tail 68; bill 12.

5. One egg from nest of No. 4. Pale greenish blue, zoned and spotted with dark brown. 24 × 17 mm.

1 is in worn plumage, under surface barred; upper surface dark brown; 2 is like 1, but blacker on the back and the tail in moult (? accidental).

3 is a young bird of the previous year; it is undergoing a body-moult, and when this is completed it will resemble 1. The remains of the juvenile plumage are to be seen on the mantle in some barred brown and white feathers and in the rufous edgings to the wing-coverts.

Dr. Bahr's field-notes suggest that in Oneata there is a distinct species of *Lalage*, and the female specimen obtained from that island differs considerably from a breeding female obtained in Vitilevu in being larger, blacker on the back, and having the under parts pure white and not barred with black. However, I find in the British Museum and at Tring specimens with white under parts from Samoa, Tongatabu, and at least one from Vitilevu, with which this specimen corresponds fairly well, except that the measurements are much too large for a female and correspond closely with that of a male, but Dr. Bahr assures me that it is sexed correctly.

Layard ('Ibis,' 1876, p. 144) records that this species is in the juvenile plumage all the year round, and breeds in it, and his statement would be borne out by Dr. Bahr's notes. Furthermore, Finsch (P. Z. S. 1877, p. 725) remarks that "adult and fully coloured" birds, which he goes on to state have the whole under surface pure white, are very rare in collections; of these he had three specimens, two were males from Tongatabu, and one a female from Matuku, Fiji.

From the poor series of this species available for examination it is impossible now to elucidate this problem further,

but it is probable that *Lalage pacifica* breeds at the end of its first year in a plumage in which both sexes are barred on the under parts, and that at the end of the second autumn the under parts become white. It possibly takes longer to become *fully* adult, as I notice some white-breasted birds are pure black on the mantle and others more brown-black. It is advisable for future collectors to get a large series of this species in moult.—C. B. T.]

PACHYCEPHALA sp. inc.

I am inclined to think that the members of this genus which have been described from Vitilevu must have become very scarce of later years; specimens were collected near Suva by Mr. M. J. Nicoll during his short stay there in 1903. Although constantly on the look-out for these bright-coloured birds during my year's stay in Vitilevu, I never met with anything resembling them, and it is inconceivable that I should have missed a comparatively large bird with a breast of such a rich yellow colour.

PINAROLESTES VITIENSIS (Hartl.).

This is an inconspicuous brown bird of apparently very silent habits. It was seen only occasionally in Vitilevu, perched in Wryneck fashion on the topmost branch of some dead and wizened tree.

[♂. May 2, 1910. Suva, Vitilevu. Iris hazel; feet indigo-blue. Wing 82 mm.

This specimen is typical and in fairly fresh plumage.—C. B. T.]

PINAROLESTES MAXIMA Layard.

On one occasion I saw three specimens of this much larger species in a tree in front of the house; my attention had been drawn to them by the behaviour of a *Ptilotis procerior*. I procured one specimen, but I never saw these birds again.

[♀. April 24, 1910. Suva, Vitilevu. Wing 101 mm.; tarsus 25; bill (from edge of forehead-feathers) 25; depth

of bill at nostrils 9, width 7. Tip of bill pale. In fairly fresh plumage.

This species was described by Layard from a specimen obtained in Kandavu and said to be a male ('Ibis,' 1876, p. 498), though the label on the type specimen now in the British Museum bears no sex. The bird is apparently very rare, as there is only one example (the type) in the British Museum, though a bird there labelled *P. nigrogularis* ♀ I could not distinguish from the type of *P. maxima*. On writing to Dr. Hartert at Tring, he informed me that there is no example there of *P. maxima*, and that the female of *nigrogularis* has a *black* throat like the male; so it seems to me that this other specimen in the British Museum is wrongly labelled and is only another specimen of *P. maxima*.—C. B. T.]

ARTAMUS MENTALIS Jard.

This fine Wood-Swallow is common near Suva, having found the telegraph- and telephone-wires congenial to its habits. It possesses considerable powers of flight, and may constantly be seen gracefully soaring above the forest. I am inclined to believe that it is a partial migrant in Vitilevu. It was much more commonly seen during the hotter weather, November to April, than in the cooler months. This species was also noted in Vanua Vua.

APLONIS VITIENSIS Layard.

This is about the only musician of a particularly unmusical avifauna; it possesses a not unpleasing Thrush-like whistle. Not a very conspicuous species, it confines its range to the tops of the tallest trees and was never seen feeding on the ground. It is common in Vitilevu and was seen on Vanua Vua, but not in the islands of Lakemba or Oneata.

[♂. April 28, 1910. Tama Vua, Suva, Vitilevu. Wing 106 mm.

♀. April 28, 1910. Tama Vua, Suva, Vitilevu. Wing 101 mm. Iris hazel; tarsus hazel.

Both birds are typical and in fairly fresh plumage; those

I have examined, obtained in December, are in much worn plumage. The sexes are very similar, but the female specimen has less gloss on the back and the whitish edges to the secondaries rather less defined.—C. B. T.]

ERYTHRURA PEALEI Hartl.

Fijian "Gigi."

This attractive Finch is common in Vitilevu. It is said to occur, but to a much more limited extent, in Vanualevu and Tavium. Specimens shot in January, February, and March were in full moult, and the immature birds of the year were beginning to assume the red head of the adult plumage. I was unable to distinguish any difference between the sexes. They feed to a great extent on grass-seeds, though the crops of those shot contained some small green caterpillars in addition. The breeding-season apparently extends over July and August. In September and October young birds with yellow bills and green heads were commonly seen in company with their parents. Family-parties consisted generally of three young birds, together with the adults. We had no difficulty in trapping them at this time. I kept a number in captivity, to which they seem to be particularly well adapted. Over twenty were brought alive to this country, where they proved themselves to be hardy and capable of nesting in confinement. An account of these, together with a coloured plate, has appeared in the 'Avicultural Magazine' for December 1911. These birds in captivity underwent a second annual, but partial, moult in October.

There was one specimen the head and face of which remained of a peculiar bluish-green tint even after several moults. It had a few red feathers at the base of the bill. This specimen is now in the Zoological Society's Gardens, and there is a skin somewhat resembling it in the British Museum.

Dr. Finsch has described (P. Z. S. 1878, p. 440) another species of *Erythrura* from Vitilevu under the name of *E. kleinschmidti*. This is a larger bird with a blue-black

head and a yellow bill. One specimen only was procured and was said to be an adult male ; it has apparently never been seen since. I would venture to suggest, however, that it may be a freak of a similar nature to the bird described above.

[♂ juv. Aug. 11, 1910. Suva, Vitilevu. Wing 57 mm.

♀ ad. Aug. 11, 1910. Suva, Vitilevu. Wing 56 mm.

♀ ad. Aug. 11, 1910. Suva, Vitilevu. Wing 57 mm.

These specimens are typical. The adults are in fresh plumage, one still having a few body-feathers in quill ; the young bird shews no moult. Either the breeding-season is an extended one or the juvenile plumage is worn for some time, as I find in the British Museum a specimen in that plumage shot on February 28 ; on the other hand, there are some getting the red head in October and November. —C. B. T.]

MEGAPODIUS sp. inc.

There is a general belief amongst Europeans in Vitilevu that a Megapode similar to that found in Ninafou (*M. stairi* Gray) lately existed there, and has been exterminated by the Mongoose. The attention of ornithologists not having been seriously drawn to the subject, I append a valuable note which I have received from Dr. B. Glauvill Corney:—

“There is, or was until eight or ten years ago, a bird in the interior and northern coast tracts of Vitilevu called the ‘Sāsā’ ; described as having speckled plumage and running along the ground among reeds, cane-brakes, and undergrowth. By ‘reeds,’ in Fiji, are meant light canes—*Eulalia japonica*—not rushes. The Sāsā did not fly, and seems to have been a mound-builder. I once met with some dogs in a remote mountain village that the natives had specially trained to hunt the Sāsā, which they described as *Kōli dankata sasa*, i. e. Sāsā-catching dogs ; but I never succeeded in seeing a Sāsā, nor did my friend Mr. Frank R. S. Baxendale, who, as Assistant Resident Commissioner in the hill districts, lived for more than a year in the Sāsā country. His successor, Mr. Georgius Wright, however, had several living specimens in his possession for some time,

and told me that he considered they were Megapodes of the same or of an allied species to those met with in the island of Ninafou (Boscawen Island) and in Samoa. Some natives likened them to Guinea-fowl, but said they were not so large as the latter, and that they laid a single egg. Between the years 1876 and 1905 they were still comparatively common and well known in the locality mentioned (where there are only a very few Europeans)."

GALLUS BANKIVA (Temm.).

According to Layard the wild Jungle-fowl of Fiji, the familiar crow of which is such a characteristic feature in these palm-clad islands, was introduced by Captain Cook. Dr. Corney, on the other hand, thinks that fowls existed in Fiji long before the coming of Captain Cook. It is pointed out that on the advent of the missionaries wild fowls were found in every island of the group. The bird is called "Toa" by the natives, and according to Dr. Corney "a small variety existed in Tahiti when the first ship (H.M.S. 'Dolphin') discovered it in 1766. The story that Quiros discovered Tahiti in 1606 is a gross error, but is repeated in most encyclopædias and similar works." If the fowl had been introduced into Tahiti in 1766, it is most likely that it would have reached Fiji at some earlier period. Moreover, there is no evidence that Cook did more than touch at the island of Vatoa, the south-easterly limit of the Fiji group. The introduction of the Mongoose sealed the fate of the Jungle-fowl in Vitilevu. On the small islands off the coast of Vitilevu it is abundant, especially on Bequaa and Mokagai, whence I was presented with a pair of these birds. Though much harassed by the Mongoose we managed to keep them alive for a year and several young were raised. The male, a typical Jungle-cock in appearance, became very familiar, and with difficulty could be kept out of the bedrooms.

On Taviuni these birds are still abundant; the planters are in the habit of shooting them with a rifle, using a tame fowl, which is trained to crow, as a lure.

PTILONOPUS PEROUSEI (Peale).

This beautiful little Dove is still to be seen on the outskirts of Suva feeding on the berries of a small shrub, the name of which I do not know. There is great difference between the sexes, the coloration of the upper parts of the male being white, claret, and greenish yellow, while the female is almost uniform green. The breeding-season appears to begin about the end of September. In places where the birds were said to be common they now exist in sadly diminished numbers. I attempted to keep one which I winged, but it refused all food in captivity.

The "coo" of this bird is Dove-like, beginning in a high *crescendo* it ends in a series of gasps.

[♂ ad. Sept. 26, 1910. Suva, Vitilevu. Iris light hazel; beak and feet emerald-green. Testes large. Wing 128 mm.

♀ ad. Sept. 26, 1910. Suva, Vitilevu. Iris chrome-yellow with a vermilion tinge; beak and feet emerald-green. Wing 126.5 mm.

♀ ad. Nov. 26, 1910. Suva, Vitilevu. Wing 128 mm. All are in fresh plumage, with a few body-feathers in quill.—C. B. T.]

CHRYSÆNAS LUTEOVIRENS (Hombr. & Jacq.).

Fijian "Coge."

This is the Barking Dove. I was mystified for a long time by its strange call, which almost exactly simulates the bark of a dog. Moreover, it is extremely difficult to find the utterer of the bark, as the bird has undoubtedly ventriloquial powers. The male is a beautiful orange-yellow in colour, and is rarely seen, as it keeps hidden amongst the dense foliage. This yellow plumage, moreover, harmonizes almost exactly with the dead leaves of the bread-fruit tree which it frequents. I managed to procure two males on the outskirts of our garden during the middle of June, at which time the pairing-season appeared to be in full swing.

When barking the male sits on top of a low tree and throws out the crop to its full extent; the much smaller and green mate sits underneath. The female does not utter any sound,

so far as I could ascertain. The body of a female which I skinned was covered with a layer of solid green fat of a peculiarly sweet odour; this fat was most difficult to remove. There was very little fat on the male specimens procured, but it was yellow in colour.

I heard this species commonly in the interior of Vitilevu, especially in the higher and more mountainous portions. It was not seen in any of the other islands visited.

A young bird of a uniform dull green colour, but recently fledged, was captured in August. An attempt to rear it proved unsuccessful.

[♂ ad. June 14, 1910. Suva, Vitilevu. Beak and feet emerald-green; circumorbital skin and line to base of bill very bright green. Wing 117 mm.

♂ ad. June 17, 1910. Suva, Vitilevu. Beak and feet emerald-green; circumorbital skin and line to base of bill very bright green. Wing 121 mm.

♀ ad. April 6, 1910. Nasuviu, Vitilevu. Wing 116 mm.

The males are in perfectly fresh plumage, the female in slightly worn plumage. Not only does the female lack the golden colour, but also the lanceolate feathers seen on the neck and upper parts of the male.

Dr. Bahr's observation on the coloration of the fat in a male and female of this species is a further interesting instance of the correlation between the colour of the fat and the colour of the plumage or soft parts in some species of birds, which I have for a long time been cognisant of and have referred to in 'The Ibis' for 1911 (p. 746). The whole subject is very little known and still less understood, and would repay investigation by those who have the opportunity.—C. B. T.]

CHRYSÆNAS VICTOR Gould.

The beautiful Golden Dove of Gould I did not see, though I understand from planters in Tavuni that it is still frequently met with in the interior. I was not fortunate in coming across any during my short stay on that island.

COLUMBA VITIENSIS Quoy & Gaimard.

Fijian "Soge dina."

This is a particularly clumsy and sluggish bird. It is still extremely common, very tame, and confiding. It is partially migratory, and appears in great numbers round Suva in the months of April and May, when it is shot extensively for the table. After the hurricane of March 24th a great many appeared in a partly dazed condition, and could easily be knocked over by sticks or stones. A very wise edict was issued by the Governor prohibiting their slaughter. In Tavuni they are said to appear around the plantations about August and September every year and then to vanish again. In Loma Loma, on Vanua Vua, I saw several which had been kept for years in captivity and had become very tame and docile. I could obtain no details regarding the breeding-habits of this species. It has a loud "coo," not unlike that of the Stock-Dove, only much louder and harsher.

CARPOPHAGA LATRANS Peale.

This large slate-coloured Pigeon was seen commonly in the island of Lakemba. It possesses an extremely loud call, quite unlike that of any other member of its tribe with which I am acquainted. I did not see any Pigeons corresponding to this in Vitilevu.

CARPOPHAGA PACIFICA (Gmel.).

This species is common in the higher parts of Vitilevu, where many were seen during a trip into the interior. It is much prized for eating purposes, and consequently has vanished from the neighbourhood of the European settlements. I have one specimen in captivity which I obtained from Samoa; it has a prominent knob at the base of the bill. It refuses all hard food and will only live on bananas. Its voice is very loud, and can be heard at a considerable distance. I saw some birds belonging to this species in Loma-Loma on the island of Vanua Vua, but not in the other islands of the eastern group.

PHLEGÆNAS STAIRI VITIENSIS Wigl.

Phlegænas stairi (Gray).

Fijian "Soge loa."

A pair of these birds was seen once only. They settled in some trees near my house soon after the hurricane in March 1910.

HYPOTÆNIDIA PHILIPPINENSIS Linn.

Rallus pectoralis (Less.).

Two specimens only of this species were seen in a mangrove-swamp at Loma Loma in the island of Vanua Vua. They were extremely wary, and I was unable to obtain a specimen.

Of the Rails I doubt whether any remain alive in Vitilevu at the present day. I was told by residents that since the introduction of the Mongoose all these birds had vanished. Some European residents even remember having taken their eggs and nests ten or fifteen years ago at the mouths of the various creeks, when Rail and Duck shooting used to constitute one of their main diversions.

Layard tabulates three species as having been found in Vitilevu, namely, the species just mentioned, *Eulabeornis pccilopterus* (Hartl.), and *Porzana plumbea* (Gray) [*Ortygometra tabuensis* (Gmel.)]. Of these the second was peculiar to Vitilevu, and is probably now extinct. The Fijian name for the Rails is "Bici."

PORPHYRIO VITIENSIS Peale.

Porphyrio samoënsis Peale.*Porphyrio smaragdinus* Temm.

Fijian "Tere."

In Vitilevu this species has probably shared the same fate as the Rails.

Only one specimen was seen in Tavuni, where, however, it is said to be still common.

CHARADRIUS FULVUS Gmel.

The Eastern Golden Plover was met with in large flocks, evidently composed of migratory birds, on the upland pastures

in Vitilevu, in the months from September to December. In Taviuni flocks were seen visiting the clearings in the bush. I managed to shoot several, which were much prized by the planters as a welcome addition to their larder.

DEMIEGRETTA SACRA Gray.

Ardea sacra Gmel.

The Fijian "Beló" is an extremely common bird in the mangrove-swamps and on the coral-reefs of every island I visited. Many individuals in the white and in the transitional stage to the slaty-grey mature plumage were seen. The natives consider this bird sacred, and I failed to induce a Fijian who was carrying a gun to shoot a specimen for me. He told me that the fine, according to Fijian law, was £6.

ANAS SUPERCILIOSA Gmel.

The Fijian "Ga" has fallen an easy prey to the Mongoose in Vitilevu. At the mouth of the Rewa River, where until comparatively recently it existed in great numbers, I only saw a pair. I was told that it is still numerous in Ovaiau. None were seen on the large inland lake which is the pride of the island of Oneata. Duck-shooting as a means of diversion in Vitilevu is now considered a thing of the past.

I did not have much opportunity of studying the shore-birds, and the few I saw were so extremely wary that they did not suffer me to approach within gunshot. I several times saw a bird like a Godwit, probably *Limosa novae-zealandiae* Gray, of which the native name is "Dolidoli."

Of the sea-birds Berg's Tern (*Sterna bergii*) and the Mutton Bird (*Puffinus brevicauda*) were most commonly seen. On the whole sea-birds are extraordinarily scarce. During a sail of three days' duration across the Koro Sea only a few Frigate Birds (*Fregata aquila*), Mutton Birds, Boobies (*Sula cyanops*), and the White-faced Storm-Petrel (*Pelagodroma marina*) were met with.

After the hurricane of March 24th a great many Frigate Birds were driven inland in a very distressed condition*.

A number of Tropic Birds (*Phaëton aethereus*) (Fijian, "Lawedua") were seen in July off the coast of Vanua Vua, where they were probably breeding.

Dr. Corney has kindly supplied me with the correct pronunciation of the native names of some of the Birds, which I append, as it may prove useful to others who collect in this group of islands :—

<i>Qiqi</i>	is like	Ng-ghi-ng-ghi.
<i>Kaká</i>	„	kăhkăh.
<i>Beló</i>	„	mbe-lô.
<i>Soqe</i>	„	sông-ghi.
<i>Ga</i>	„	nga (<i>ng</i> as in singing).
<i>Lawedua</i>	„	lah-wey-ndua.
<i>Tere</i>	„	terrey.
<i>Coqe</i>	„	thong-ghi (<i>th</i> as in <i>that</i>).

The rest are easy, if you remember that

c = th as in *that* or *father*—not as in *think*.

b = mb.

d = nd.

g = ng as in *singing* or in *singer*, never as in *finger*.

q = ng as in *finger*: vowels always as in Spanish or Italian.

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* The Fijian name for the Frigate Bird is "Kasaga" and for the Mutton Bird "Rikoriko."

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XV.—*Notes on the Ornithology of Corsica.*—Part IV.

By the Rev. FRANCIS C. R. JOURDAIN, M.A., M.B.O.U.

[Concluded from p. 82.]

164. PHALACROCORAX CARBO (L.). Cormorant.

Neither Wharton nor Whitehead make any mention of this species, and Giglioli does not include it in his list of Corsican birds in the 'Primo Resoconto' (p. 638), which was published in 1890. Backhouse saw Cormorants or Shags flying over the Gulf of Ajaccio in winter, but was unable to